

October 5, 2001

Mr. Rodney Camp  
Profile Extrusion Company  
P.O. Box 505  
Boonville, Indiana 47601

Re: 173-14810-00024  
Third Minor Permit Revision to  
**MSOP 173-10882-00024**

Dear Mr. Camp:

Profile Extrusion Company was issued a minor source operating permit on July 19, 1999 for a secondary aluminum processing source. A letter requesting a revision to this permit was received on August 28, 2001. Pursuant to the provisions of 326 IAC 2-6.1-6 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

one (1) natural gas-fired reverberatory furnace, known as furnace #1, equipped with low NO<sub>x</sub> burners, with the furnace exhausting to stack #1B and combustion by-products exhausting to stack #B, using liquefied propane gas for backup, rated at 24.0 million British thermal units (replacing a 19.0 million British thermal units furnace), maximum capacity of 4.25 tons of aluminum per hour.

The following construction conditions are applicable to the proposed project:

1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Pursuant to IC 13-15-5-3, this approval to construct becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Paula M. Cognitore, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments

PMC:MES

cc: File - Warrick County  
U.S. EPA, Region V  
Warrick County Health Department  
Southwest Regional Office  
Air Compliance Section Inspector - Scott Anslinger  
Compliance Branch - Karen Nowak  
Administrative and Development - Cynthia Bymaster  
Technical Support and Modeling - Michele Boner

# **CONSTRUCTION PERMIT and MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY**

**Profile Extrusion Company  
298 Essex Drive West  
Boonville, Indiana 47601**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 173-10882-00024	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: July 19, 1999

First Minor Permit Revision: 173-11755-00024, Issued February 14, 2000

Second Minor Permit Revision: 173-11978-00024, Issued March 20, 2000

Third Minor Permit Revision: 173-14810-00024	Conditions Affected: A.2, D.1(box), D.1.3 Conditions Added: D.1.2
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: October 5, 2001

## TABLE OF CONTENTS

<b>A</b>	<b>SOURCE SUMMARY</b> .....	<b>4</b>
A.1	General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]	
A.2	Emission Units and Pollution Control Equipment Summary	
<b>B</b>	<b>GENERAL CONSTRUCTION CONDITIONS</b> .....	<b>6</b>
B.1	Permit No Defense [IC 13]	
B.2	Definitions	
B.3	Effective Date of the Permit [IC 13-15-5-3]	
B.4	Revocation of Permits [326 IAC 2-1.1-9(5)]	
B.5	Modification to Permit [326 IAC 2]	
B.6	Minor Source Operating Permit [326 IAC 2-6.1]	
<b>C</b>	<b>SOURCE OPERATION CONDITIONS</b> .....	<b>8</b>
C.1	PSD Minor Source Status [326 IAC 2-2]	
C.2	Preventive Maintenance Plan [326 IAC 1-6-3]	
C.3	Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]	
C.4	Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]	
C.5	Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]	
C.6	Permit Revocation [326 IAC 2-1-9]	
C.7	Opacity [326 IAC 5-1]	
C.8	Fugitive Dust Emissions [326 IAC 6-4]	
C.9	Performance Testing [326 IAC 3-6]	
C.10	Compliance Monitoring [326 IAC 2-1.1-11]	
C.11	Maintenance of Monitoring Equipment [IC 13-14-1-13]	
C.12	Monitoring Methods [326 IAC 3]	
C.13	Actions Related to Noncompliance Demonstrated by a Stack Test	
	<b>Record Keeping and Reporting Requirements</b>	
C.14	Malfunctions Report [326 IAC 1-6-2]	
C.15	Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-3]	
C.16	General Record Keeping Requirements [326 IAC 2-6.1-2]	
C.17	General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]	
<b>D.1</b>	<b>Emissions unit OPERATION CONDITIONS</b> .....	<b>16</b>
	<b>Emission Limitations and Standards</b>	
D.1.1	Particulate Matter (PM) [326 IAC 6-3-2(c)]	
D.1.2	MSOP [326 IAC 2-6]	
	<b>Compliance Determination Requirements</b>	
D.1.3	Testing Requirements	
	<b>Compliance Monitoring Requirements</b>	
D.1.4	Visible Emission Notations	
	<b>Record Keeping and Reporting Requirements</b>	
D.1.5	Record Keeping Requirements	

**D.2 Emissions unit OPERATION CONDITIONS ..... 19**

**Emission Limitations and Standards**

D.2.1 Emergency Generator Provisions

**Compliance Determination Requirements**

D.2.2 Testing Requirements

**Compliance Monitoring Requirements**

D.2.3 Visible Emissions Notations

**Record Keeping and Reporting Requirements**

D.2.4 Record Keeping Requirements

**Malfunction Report ..... 21**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

---

The Permittee owns and operates a stationary secondary aluminum processing source.

Authorized Individual: Rodney N. Camp  
Source Address: 298 Essex Drive, Boonville, Indiana 47601  
Mailing Address: P.O. Box 505, Boonville, Indiana 47601  
Phone Number: 812-897-3604  
SIC Code: 3341  
County Location: Warrick  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, under PSD  
Minor Source, Section 112 of the Clean Air Act  
1 of 28 Source Categories

### A.2 Emissions units and Pollution Control Equipment Summary

---

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) one (1) natural gas-fired reverberatory furnace, known as furnace #1, equipped with low NO<sub>x</sub> burners, with the furnace exhausting to stack #1B and combustion by-products exhausting to stack #B, using liquefied propane gas for backup, rated at 24.0 million British thermal units (replacing a 19.0 million British thermal units furnace), maximum capacity of 4.25 tons of aluminum per hour.
- (b) one (1) natural gas-fired reverberatory furnace, known as furnace #2, with the furnace exhausting to stack #2C and combustion by-products exhausting to stack #A, using liquefied propane gas for backup, rated at 24.0 million British thermal units per hour, maximum capacity of 4.25 tons of aluminum per hour.
- (c) one (1) natural gas-fired reverberatory furnace, known as furnace #6, with combustion by-products exhausting to stack #3D, using liquefied propane gas for backup rated at 20.0 million British thermal units, maximum capacity of 3.31 tons of aluminum per hour.
- (d) one (1) natural gas-fired homogenizing furnace, known as furnace #3, installed prior to 1968, exhausting through general ventilation, using liquefied propane gas for backup, rated at 18.0 million British thermal units, maximum capacity of 3.31 tons of aluminum per hour.
- (e) two (2) natural gas-fired homogenizing ovens, known as oven #4 and oven #5, installed in 1997, equipped with four (4) 2.5 million British thermal units per hour total.

- (f) one (1) pouring and casting process, installed prior to 1968, exhausted to general ventilation, with a an increase in maximum throughput from 4.0 tons of aluminum per hour to 5.0 tons of aluminum per hour.
- (g) one (1) diesel fueled emergency generator, installed in 1997, exhausted to stack #4, rated at 335 horsepower.

## **SECTION B GENERAL CONSTRUCTION CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **B.1 Permit No Defense [IC 13]**

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **B.2 Definitions**

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

### **B.3 Effective Date of the Permit [IC13-15-5-3]**

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

### **B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]**

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### **B.5 Modification to Permit [326 IAC 2]**

Notwithstanding Condition B.7, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

### **B.6 Minor Source Operating Permit [326 IAC 2-6.1]**

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the emissions units were constructed as proposed in the application. The emissions units covered in the Minor Source Operating Permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).



- (e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
---------------

### C.1 Minor Source Status [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-7]

- (a) The total source potential to emit of all criteria pollutants is less than 100 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), 40 CFR 52.21, and 326 IAC 2-7 (Part 70 Permit Program) will not apply.
- (b) Any change or modification which may increase potential to emit to 100 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.
- (c) Any change or modification which may increase an individual HAP to ten (10) tons per year or any combination of HAPs to twenty-five (25) tons per year from this source, shall cause this source to be considered a major source under 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ.

### C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of [326 IAC 2-6.1-6] whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
  - (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
  - (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
  - (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
- (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAQ, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAQ, nor an authorized representative, may disclose the information unless and until IDEM, OAQ, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
  - (2) The Permittee, and IDEM, OAQ, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

#### C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

### **Testing Requirements**

#### C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

### **Compliance Monitoring Requirements**

#### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### **C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]**

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hours until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

#### **C.12 Monitoring Methods [326 IAC 3]**

Any monitoring or testing performed to meet the applicable requirements of this permit shall be

performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

**C.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

---

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**Record Keeping and Reporting Requirements**

**C.14 Malfunctions Report [326 IAC 1-6-2]**

---

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

**C.15 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]**

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

**C.16 General Record Keeping Requirements [326 IAC 2-6.1-2]**

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;

- (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]**

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.



**C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]**

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) one (1) natural gas-fired reverberatory furnace, known as furnace #1, equipped with low NO<sub>x</sub> burners, with the furnace exhausting to stack #1B and combustion by-products exhausting to stack #B, using liquefied propane gas for backup, rated at 24.0 million British thermal units (replacing a 19.0 million British thermal units furnace), maximum capacity of 4.25 tons of aluminum per hour.
- (b) one (1) natural gas-fired reverberatory furnace, known as furnace #2, with the furnace exhausting to stack #2C and combustion by-products exhausting to stack #A, using liquefied propane gas for backup, rated at 24.0 million British thermal units per hour, maximum capacity of 4.25 tons of aluminum per hour.
- (c) one (1) natural gas-fired reverberatory furnace, known as furnace #6, with combustion by-products exhausting to stack #3D, using liquefied propane gas for backup rated at 20.0 million British thermal units, maximum capacity of 3.31 tons of aluminum per hour.
- (d) one (1) natural gas-fired homogenizing furnace, known as furnace #3, installed prior to 1968, exhausting through general ventilation, using liquefied propane gas for backup, rated at 18.0 million British thermal units, maximum capacity of 3.31 tons of aluminum per hour.
- (e) two (2) natural gas-fired homogenizing ovens, known as oven #4 and oven #5, installed in 1997, equipped with four (4) 2.5 million British thermal units per hour total.
- (f) one (1) pouring and casting process, installed prior to 1968, exhausted to general ventilation, with a an increase in maximum throughput from 4.0 tons of aluminum per hour to 5.0 tons of aluminum per hour.

### Emission Limitations and Standards

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) Pursuant to CP 173-6212-00024, issued on July 23, 1997, the particulate matter (PM) from furnace #1 shall be limited to 9.14 pounds per hour.

- (b) The particulate matter (PM) from furnace #2 shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

for a process weight rate (P) for furnace #2 of 3.31 tons of aluminum per hour, the allowable PM emission rate is 9.14 pounds per hour.

- (c) The particulate matter (PM) from furnace #6 shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

for a process weight rate (P) for furnace #6 of 3.31 tons per hour the allowable PM emission rate is 9.14 pounds per hour.

#### D.1.2 MSOP [326 IAC 2-6]

The existing 19.0 million British thermal units furnace #1 shall be completely removed from the source before the new 24.0 million British thermal units per hour furnace #1 may be installed.

### Compliance Determination Requirements

#### D.1.3 Testing Requirements [326 IAC 3-6]

- (a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance.
- (b) Within 60 days after achieving the maximum production rate for the 24.0 million British thermal units per hour for furnace #2, but no later than 180 days after initial start-up, the Permittee shall perform PM testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for, or other methods as approved by the Commissioner to show compliance with D.1.1. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.
- (c) Within 60 days after achieving the maximum production rate for the 24.0 million British thermal units per hour for furnace #1, but no later than 180 days after initial start-up, the Permittee shall perform PM testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for, or other methods as approved by the Commissioner to show compliance with D.1.1. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

#### D.1.4 Visible Emissions Notations

- (a) Visible emission notations of all stack exhausts shall be performed during normal daylight operations once per shift when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

**Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

**D.1.5 Record Keeping Requirements**

---

To document compliance with Condition D.1.4, the Permittee shall maintain records of daily visible emission notations of all stack exhaust.

## **SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

### **Emissions Unit Description -**

one (1) diesel fueled emergency generator, installed in 1997, exhausted to stack #4, rated at 335 horsepower.

### **Emission Limitations and Standards**

#### **D.2.1 Emergency Generator Provisions**

Pursuant to CP 173-6212-00024, issued on July 23, 1997, the emergency generator shall be limited to 500 hours of operation per year. Therefore, the permitting requirements of 326 IAC 2-1 do not apply.

### **Compliance Determination Requirements**

#### **D.2.2 Testing Requirements [326 IAC 2-1.1-11]**

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, a performance test is conducted in accordance with Section C - Performance Testing.

### **Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

#### **D.2.3 Visible Emissions Notations**

- (a) Daily visible emission notations of the stack #4 exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

### **Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

#### **D.2.4 Record Keeping Requirements**

- (a) To document compliance with Condition D.2.3, the Permittee shall maintain records of daily visible emission notations of the stack #4 exhaust.

- (b) The Permittee shall maintain records of the hours of use of the emergency generator to verify compliance with D.2.1 and reports shall be furnished to OAQ upon request.

### **MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES ?\_\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_\_, 100 TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: Profile Extrusion Company      PHONE NO. : 812-897-3604  
LOCATION: (CITY AND COUNTY) Boonville / Warrick  
PERMIT NO. 173-10882    AFS PLANT ID: 173-00024    AFS POINT ID: \_\_\_\_\_    INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_\_ / \_\_\_\_\_ / 19\_\_\_\_      \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_\_ / \_\_\_\_\_ / 19\_\_\_\_      \_\_\_\_\_ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO<sub>2</sub>, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_  
INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\* **Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

---

---



## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Permit Revision to a Minor Source**

#### **Source Background and Description**

<b>Source Name:</b>	<b>Profile Extrusion Company</b>
<b>Source Location:</b>	<b>298 Essex Drive, Boonville, Indiana 47601</b>
<b>County:</b>	<b>Warrick</b>
<b>SIC Code:</b>	<b>3341</b>
<b>Operation Permit No.:</b>	<b>M 173-10882-00024</b>
<b>Operation Permit Issuance Date:</b>	<b>July 19, 1999</b>
<b>Minor Permit Revision No.:</b>	<b>MPR 173-14810-00024</b>
<b>Permit Reviewer:</b>	<b>Paula M. Cognitore</b>

The Office of Air Quality (OAQ) has reviewed a revision application from Profile Extrusion Company relating to the construction and operation of the following emission units and pollution control devices:

- (a) one (1) natural gas-fired reverberatory furnace, known as furnace #1, equipped with low NO<sub>x</sub> burners, with the furnace exhausting to stack #1B and combustion by-products exhausting to stack #B, using liquefied propane gas for backup, rated at 24.0 million British thermal units (replacing a 19.0 million British thermal units furnace), maximum capacity of 4.25 tons of aluminum per hour.

#### **History**

On August 31, 2001, Profile Extrusion Company submitted an application to the OAQ requesting to replace their existing 19.0 million British thermal unit reverberatory furnace with a 24.0 million British thermal unit reverberatory furnace equipped with low NO<sub>x</sub> burners. Although the source is increasing the size of the furnace there will be no increase in the throughput of the process associated with furnace #1. Profile Extrusion Company was issued a Minor Source Operating Permit (MSOP) on July 19, 1999. Profile Extrusion Company was issued a First Minor Permit Revision on February 14, 2000 and their Second Minor Permit Revision on March 20, 2000.

The proposed emission unit is being designated as item (a) in the equipment list to be consistent with the listing of the emission units in the permit.

#### **Enforcement Issue**

There are no enforcement actions pending.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
1B	furnace #1	27	3.5	23,800	125
B	furnace #1	42	4.3	4,10	300

### Recommendation

The staff recommends to the Commissioner that the MSOP Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 28, 2001.

### Emission Calculations

See pages 1-3 of Appendix A of this document for detailed emissions calculations.

### Potential To Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.689
PM <sub>10</sub>	0.799
SO <sub>2</sub>	0.063
VOC	0.578
CO	8.83
NO <sub>x</sub>	21.8

HAPs	Potential To Emit (tons/year)
Benzene	0.0002
Dichlorobenzene	0.0001
Formaldehyde	0.008
Hexane	0.189
Toluene	0.004
Lead	0.00005
Cadmium	0.0001
Chromium	0.0001
Manganese	0.00004
Nickel	0.0002
TOTAL	0.203

#### Justification for Revision

The MSOP is being revised through a MSOP Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-6.1-6(g) because the potential to emit of NO<sub>x</sub> is equal to or greater than five (5) tons per year but less than twenty-five (25) tons per year.

#### County Attainment Status

The source is located in Warrick County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Warrick County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Warrick County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Although this source is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, it does not have the potential to emit more than one-hundred (100) tons per year of any regulated pollutant. Therefore, since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

**Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	21.2
PM <sub>10</sub>	21.8
SO <sub>2</sub>	0.849
VOC	14.2
CO	34.1
NO <sub>x</sub>	80.9

(a) Although this existing source is one of the 28 listed source categories it is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(b) These emissions are based upon the Technical Support Document of Minor Permit Revision 173-11755-00024 issued February 14, 2000.

**Potential to Emit of Revision After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this MSOP revision.

Process/facility	Potential to Emit (tons/year)						
	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Existing Source with the existing furnace #1 (combustion) removed	20.7	21.3	0.804	13.7	27.8	65.4	0.612
New furnace #1 (combustion)	0.689	0.799	0.063	0.578	8.83	21.8	0.203
Entire source after revision	21.4	22.1	0.867	14.3	36.6	87.2	0.815
PSD Threshold Level	100	100	100	100	100	100	-

This revision to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### **Federal Rule Applicability**

- (a) There are still no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed revision.
- (b) There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed revision.

### **State Rule Applicability - Individual Facilities**

#### **326 IAC 6-3-2 (Process Operations)**

Pursuant to MSOP 173-10882-00024, issued on July 19, 1999, the particulate matter (PM) from the furnace #1 shall be limited to 9.14 pounds per hour. The limit was based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

#### **326 IAC 8-1-6 (New facilities; general reduction requirements)**

Since the VOC emissions from the modification are less than 25 tons per year, the requirements of 326 IAC 8-1-6 do not apply.

### **Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no additional Compliance Monitoring Requirements applicable for this proposed revision.

## Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

1. A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

Source Status: Minor Source Operating Permit  
Minor Source, under PSD  
Minor Source, Section 112 of the Clean Air Act  
**1 of 28 Source Categories**

2. A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) one (1) natural gas-fired reverberatory furnace, known as furnace #1, ~~installed prior to 1968,~~  
**equipped with low NO<sub>x</sub> burners**, with the furnace exhausting to stack #1B and combustion by-products exhausting to stack #AB, using liquefied propane gas for backup, rated at ~~19.0~~ **24.0** million British thermal units (**replacing a 19.0 million British thermal units furnace**), maximum capacity of 4.25 tons of aluminum per hour.

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) one (1) natural gas-fired reverberatory furnace, known as furnace #1, ~~installed prior to 1968,~~  
**equipped with low NO<sub>x</sub> burners**, with the furnace exhausting to stack #1B and combustion by-products exhausting to stack #AB, using liquefied propane gas for backup, rated at ~~19.0~~ **24.0** million British thermal units (**replacing a 19.0 million British thermal units furnace**), maximum capacity of 4.25 tons of aluminum per hour.

3. D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) Pursuant to CP 173-6212-00024, issued on July 23, 1997, the particulate matter (PM) from furnace #1 shall be limited to 9.14 pounds per hour.

- (b) The particulate matter (PM) from furnace #2 shall be limited by the following:

Interpolation ~~and extrapolation~~ of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

for a process weight rate (P) for furnace #2 of 3.31 tons of aluminum per hour, the allowable PM emission rate is 9.14 pounds per hour.

- (c) The particulate matter (PM) from furnace #6 shall be limited by the following:

Interpolation ~~and extrapolation~~ of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

4. **D.1.2 MSOP [326 IAC 2-6]**

**The existing 19.0 million British thermal units furnace #1 shall be completely removed from the source before the new 24.0 million British thermal units per hour furnace #1 may be installed.**

5. **D.1.3 Testing Requirements [326 IAC 3-6]**

(a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance.

(b) Within 60 days after achieving the maximum production rate for the 24.0 million British thermal units per hour for furnace #2, but no later than 180 days after initial start-up, the Permittee shall perform PM testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for, or other methods as approved by the Commissioner to show compliance with D.1.1. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

**3. Within 60 days after achieving the maximum production rate for the 24.0 million British thermal units per hour for furnace #1, but no later than 180 days after initial start-up, the Permittee shall perform PM testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for, or other methods as approved by the Commissioner to show compliance with D.1.1. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.**

6. **D.1.4 Visible Emissions Notations**

(a) ~~Daily~~ Visible emission notations of all stack exhausts shall be performed during normal daylight operations **once per shift** when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Note: All references to the Compliance Data Section have been changed to Compliance Branch. All references to OAM have been changed to OAQ and Office of Air Management have been changed to Office of Air Quality.

**Conclusion**

The construction of this proposed revision shall be subject to the conditions of the attached proposed MSOP Minor Permit Revision No. 173-11755-00024.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: Profile Extrusion Company****Address City IN Zip: 298 Essex Drive Boonville, Indiana 47601****MSOP: 173-14810****Plt ID: 173-00024****Reviewer: Paula M. Cognitore****Date: August 28, 2001****Furnace #1**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

24.0

210.2

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	50.0	5.5	84.0
Potential Emission in tons/yr	0.200	0.799	0.063	**see below	0.578	8.83

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.



**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Profile Extrusion Company****Address City IN Zip: 298 Essex Drive Boonville, Indiana 47601****CP: 173-14810****Plt ID: 173-00024****Reviewer: Paula M. Cognitore****Date: August 28, 2001****Furnace #1****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.208E-04	1.261E-04	7.884E-03	1.892E-01	3.574E-04

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.256E-05	1.156E-04	1.472E-04	3.995E-05	2.208E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**LPG-Propane - Industrial Boilers**  
**(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)**

Page 3 of 3 TSD App A

**Company Name:** Profile Extrusion Company  
**Address City IN Zip:** 298 Essex Drive Boonville, Indiana 47601  
**MSOP:** 173-14810  
**Plt ID:** 173-00024  
**Reviewer:** Paula M. Cognitore  
**Date:** August 28, 2001

**Furnace #1 (Back - up Fuel)**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
kgals/year

SO<sub>2</sub> Emission factor = 0.10 x S

S = Sulfur Content = 0.02 grains/100ft<sup>3</sup>

24.0

2298

Emission Factor in lb/kgal	Pollutant					
	PM* 0.6	PM10* 0.6	SO <sub>2</sub> 0.002 (0.10S)	NO <sub>x</sub> 19.0	VOC 0.5 **TOC value	CO 3.2
Potential Emission in tons/yr	0.689	0.689	0.002	21.8	0.574	3.68

\*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

\*\*The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

**Methodology**

1 gallon of LPG has a heating value of 94,000 Btu

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).